

Serial No. 10/633109
Attorney/Agent Docket No. AGYT-017CIP2 (PC19514C)

Please replace all prior claims in the application with the following amended claim set:

1. (Original). A method for identifying a modulator of N-methyl-D-aspartate receptor (NMDA-R) signaling activity, comprising detecting the ability of an agent to modulate the phosphatase activity of a protein tyrosine phosphatase with said NMDA-R ~~on a~~ ~~substrate~~ or to modulate the binding of the protein tyrosine phosphatase to NMDA-R, thereby identifying the modulator, wherein the protein tyrosine phosphatase is capable of directly or indirectly dephosphorylating NMDA-R.
2. (Original). The method according to Claim 1, wherein said protein tyrosine phosphatase is capable of dephosphorylating a protein tyrosine kinase (PTK), which PTK phosphorylates NMDA-R.
3. (Canceled).
4. (Original) The method of claim 1, wherein the protein tyrosine phosphatase is human.
- 5-6. (Canceled)
7. (Currently amended). A method for identifying an agent as a modulator of NMDA-R signaling, comprising:
 - (a) contacting
 - (i) the agent;
 - (ii) a protein tyrosine phosphatase and a protein tyrosine kinase (PTK) that phosphorylates NMDA-R; and
 - (iii) NMDA-R or a subunit thereof;wherein either or both of (ii) and (iii) is substantially pure or recombinantly expressed;
 - (b) measuring the tyrosine phosphorylation level of the NMDA-R or subunit;

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(c) comparing the NMDA-R tyrosine phosphorylation level in the presence of the agent with the NMDA-R tyrosine phosphorylation level in the absence of the agent,

wherein a difference in tyrosine phosphorylation levels identifies the agent as a modulator of NMDA-R signaling.

8-13. (Canceled).

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